

FINAL

**U.S. EPA Region 9**  
**End of Year Report**  
**for**  
**Arizona Department of Environmental Quality**  
**Water Quality Division**  
  
**State Fiscal Year 2020**  
**July 1, 2019, to June 30, 2020**

**December 2020**

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## **I. Background**

### **A. Water Program Funding**

In the State Fiscal Years (SFY) 2019 and 2020, the water programs provided \$12.1 in federal and state match to implement programs. EPA provided three program allocations in the PPG, including Clean Water Act (CWA) 106, CWA 319, and Safe Drinking Water Act Public Water Systems Supervision (PWSS). AzDEQ also received stand-alone grants for specific projects through CWA 106 Monitoring Initiative, 319, and 604(b). During the same period, Arizona Water Infrastructure Finance Agency (WIFA) received approximately \$30 million from EPA in Clean Water and Drinking Water State Revolving Funds (SRF) and provided \$4.2 million to AzDEQ as a contractor to carry out drinking water tasks.

#### SFY 2019 and 2020 final PPG funding amounts (including match):

- Water: \$12.1 million
  - CWA 106: \$4 million
  - CWA 319: \$4.3 million
  - PWSS: \$3.8 million
- Air: \$13 million
- Land: \$3.3 million

#### Stand-alone grants:

- CWA 106 Monitoring Initiative:
  - 2018/19: \$223,789
  - 2020: \$161,755
- CWA 319 (see chart below for open NPS grants)
- CWA 604(b):
  - 2019: \$100,000
  - 2020: \$108,000

### **B. Administration of Water Programs**

The purpose of the Administration sections of the multi-media Integrated Performance Partnership Grant (PPG) Workplan (Workplan) is to manage the Water Program components, tasks, and deliverables. Specifically, tasks include the schedule for workplan development and approval, reporting requirements, and development and management of relevant database applications.

#### **Program Performance**

AzDEQ Water Quality Division (AzDEQ) has met all the agreed-upon administration Workplan development deliverables and reporting dates. However, there are tasks under this Value Stream that appear to fit better in other sections of the Workplan (i.e., water quality database development) and there are some legacy tasks that should be omitted altogether. AzDEQ needs to conduct a deep dive review of all tasks and deliverables under this Value Stream to ensure the tasks presented are current and merit inclusion in these areas.

In general, AzDEQ believes that it is meeting all agreed upon PPG funded deliverables and outputs which are valued at ~\$6 million/year. However, due to the structure and formatting of the Workplan,

it is extremely difficult to connect federal funding with deliverables and outputs. For EPA to effectively evaluate overall performance, the Workplan should include more deliverables with clear and specific outputs and timeframes. Additionally, the Workplan needs to clearly mark which tasks/deliverables are partially or fully funded with federal funds. If a task/deliverable is partially funded, some type of percent funding level should be included.

### **Federal Funding**

All tasks/deliverables under this Value Stream appear to be funded by the PPG but there is no documentation to explain or illustrate the amount of federal funding that is allocated to these sections. It is difficult to evaluate tasks/deliverables when there is no description of federal funding dedicated to the administration tasks.

## **II. Surface Water**

### **A. Water Quality Standards**

The CWA requires States to assess their water quality standards (WQS) every three years and to adopt or revise standards as necessary to protect designated uses. The Standards, Monitoring, and Assessment Unit manages the assessment and development of WQS. The WQS Program is the foundation for all other CWA programs including the Arizona Pollutant Discharge Elimination System (AzPDES), monitoring and assessment, Total Maximum Daily Load (TMDL), and non-point source programs.

#### **Program Performance**

AzDEQ submitted its Triennial Review Package of WQS amendments, including over 250 numeric criteria updates, major updates to 7 narrative sections, and more than 40 changes to designated uses, to EPA for review and action in November 2019, over two months ahead of the workplan schedule. The package was a huge lift for AzDEQ, however, the early submittal impacted coordination between EPA and AzDEQ. While effective engagement between EPA and AzDEQ occurred regularly in the early stages of development of this package, there was a lapse in communication between public notice and subsequent submittal to EPA. The final package includes WQS changes that had not been previously coordinated with EPA, resulting in delays in EPA's review.

AzDEQ made positive progress on its work to support the development of nutrient WQS for lakes/reservoirs and rivers/streams. While AzDEQ has not yet drafted nutrient WQS per the Workplan schedule, AzDEQ has worked closely with EPA and contractors providing technical support as part of the Nutrient Scientific Technical Exchange Partnership & Support (N-STEPS) program. The N-STEPS project for rivers and streams nutrient criteria is progressing well towards a draft standard, these criteria should be ready for the 2022 WQS updates. Updated Arizona specific nutrient criteria will be an important component to supporting aquatic life and recreational uses.

AzDEQ staff also updated and expanded efforts on biological criteria in coordination with EPA and agency contractors. EPA understands that the biological criteria may be suspended and would like to further discuss. Expanded and updated biological criteria are important to supporting aquatic, fish consumption, and recreational uses via low-cost biological samples of macroinvertebrates and other biotas. Both the biological criteria and N-STEPS efforts have included biological sampling alongside

water quality parameters to provide a fuller picture of water quality. This work is not described in the Workplan and EPA is unclear if it is supported by PPG funds. Finally, AzDEQ reports that it has ceased the grant workplan funded dissolved oxygen (DO) criteria task but has not reported what work the program conducted in place of this effort.

## **Federal Funding**

PPG Funded

## **B. Water Quality Monitoring**

The surface water monitoring program implements the state Comprehensive Monitoring Strategy and annual Sampling and Analysis Plans, and also supports Integrated Report development, Nonpoint Source, Water Quality Standards (WQS), TMDL, and other programs. This work is also supported through CWA 106 Monitoring Initiative (MI) funds. The CWA 106 MI commitments/outputs are included as a section of the Workplan. The CWA 106 MI specifically supports probabilistic surveys, monitoring program design, the National Aquatic Resource Surveys, and special monitoring initiatives that are not in direct support of the 303(d) portions of the Integrated Report.

### **Program Performance**

AzDEQ completed its 10-year Comprehensive Monitoring Strategy (CMS) and annual monitoring plans. However, despite being a workplan deliverable, AzDEQ did not submit the Draft CMS to EPA for review and comment. It appears that AzDEQ's CMS and annual sampling plans prioritize sampling waters that are known to be impaired and do include monitoring other waters where the condition is unknown. CWA § 305(b) requires that states monitor the quality of all their waters, not just impaired waters.

AzDEQ has reported improved internal coordination on monitoring data collection, especially with the TMDL unit. This kind of work supports a more resilient and robust surface water quality program. AzDEQ has addressed previous performance concerns by improving its data entry; data is now flowing to the Water Quality eXchange network (WQX) as required. AzDEQ effectively maintains a close dialogue with EPA's Office of Water and Region 9 on WQX and Water Quality Portal (WQP) connectivity. Finally, AzDEQ has committed to improved data reports that will assist in better coordination of water quality information across AzDEQ and EPA surface water quality programs.

## **Federal Funding**

These efforts are funded by PPG, CWA 106 MI grant, and state funds. The CWA106 MI grant is fiscally separate from the Workplan, however workplan tasks interact and overlap. The Workplan clearly demonstrates that there are no intermingled funds or duplicative charges for these negotiated tasks. In February 2020, AQEQ reported that due to loss of staff and dry weather conditions, approximately \$63,000 of CWA 106 MI workplan tasks would not be completed within the grant period, however, when EPA reviewed the tasks, EPA identified that those workplan tasks were not eligible activities under the CWA 106 MI grant. In July 2020, AzDEQ submitted a workplan amendment with appropriate eligible tasks and requested an extension of the grant period. EPA approved a no-cost extension of CWA 106 MI grant #96993120-1 until June 30, 2021, to allow completion of the newly identified eligible tasks.

## **C. Integrated Report and TMDL**

The Standards, Monitoring and Assessment Unit, and the Watershed Improvement Unit implement the CWA 303(d) and CWA 305(b) Integrated Report (IR) or “Assessment,” and the TMDL programs respectively. The IR describes surface water quality across the state and identifies waters not meeting standards as impaired. The CWA requires states to take action to improve water quality in impaired waters by calculating and reducing pollutant loads through TMDLs or other means. CWA 106 grant funding is provided via the Workplan to support these efforts.

### **Program Performance**

TMDLs: AQEQ met one of its TMDL vision priority commitments by submitting the Santa Cruz River e. coli TMDL in December 2019 with EPA approval in February 2020. The TMDL was developed in coordination with the Nonpoint Source Program (NPS) and technical contract support from EPA. During our review, EPA noted inconsistencies in AzDEQ’s adherence to its continuing planning process public notice requirements and worked with AzDEQ on a process to improve such public notices for future TMDLs.

However, AzDEQ did not submit the Pinto Creek copper TMDL as scheduled. EPA has modified the workplan due date for this TMDL several times; it is currently due December 31, 2020. As this TMDL has been included in AzDEQ workplans since December 2004, EPA looks forward to its submittal. AzDEQ has also reported that it suspended work on its Vision Commitment for the San Pedro River e. coli TMDL. Data collection and drafting of the San Pedro River TMDL tasks have been included in workplans since 2003. Finally, AzDEQ reported that it has suspended work on its Vision Commitment for the Queen Creek copper TMDL due to changes in the Navigable Waters Protection Rule (NWPR). EPA notes the Queen Creek copper TMDL completion has been included as a workplan deliverable with an original due date of June 2007.

During the EOY programmatic discussions, AzDEQ reported to EPA that instead of TMDL/Vision Projects, the effort is being diverted to support its “Known Ongoing Unauthorized Impacts” (KOU) site activities. The KOU program seeks to address potential sources of pollution through swift action. KOU actions do not yet include load allocations or reductions calculations in support of the NPS, TMDL, or IR programs. If AzDEQ would like to pursue the KOU strategy to meet the requirements of Section 303(d) then the program should evolve to include planning and assessment activities such as calculations of load reductions and pollutant load prioritization to address long term water quality goals.

Assessment: AzDEQ has not met grant commitments for workplan deliverables in the performance period. Specifically, the Mule Gulch data summary is more than 6 months overdue and the Big Bug data summary, due June 30, 2020, was not completed. AzDEQ clarified during EOY discussions that work was likely diverted to KOU tasks. Davidson Canyon's monitoring and data summary work has been suspended since July 2019. While workplan tasks can change, EPA has not received sufficient reporting to document what work AzDEQ conducted in place of these workplan tasks. Changes to deliverables must be renegotiated and approved by EPA.

AzDEQ continues to be one of several states leading efforts to automate portions of the IR process with the development of their tools using CRAN R. However, AzDEQ provided EPA with its Draft 2020 IR in Dec. 2019 which assessed waters using WQS that had not been approved by EPA. As discussed in programmatic calls, EPA cannot approve an IR based on unapproved WQS. AzDEQ

may choose to revise its draft 2020 IR against approved WQS or delay its 2020 IR process until after EPA has acted on its 2019 Triennial Review WQS revisions.

AzDEQ continued to experience significant staff and management turnover and staff vacancies over the performance period. AzDEQ has cited these challenges as a root cause of missed workplan commitments such as the Big Bug data summary and the ability to make progress toward achieving program goals such as the Pinto Creek TMDL. In Spring 2020 AzDEQ permanently filled the Watershed Improvement Unit management position, allowing the acting manager to return to a supporting role.

## **Federal Funding**

PPG Funded

## **D. AzPDES Permitting**

AzDEQ's AzPDES Permitting Section implements section 402 of the CWA. The current universe of AzPDES permits is 156, including both individual and general permits. The total number of entities that are covered by the permits including those covered by the notice of intent authorizations under general permits is around 5,000 entities.

### **Program Performance**

AzDEQ continued to issue quality permits on time but slipped below the Workplan performance target of 90% current since mid-year. Due to the challenges posed by the newly adopted NWPR and uncertainties related to the jurisdictional status of receiving waters for various permits, as well as the shutdown due to the Covid-19 pandemic, AzDEQ is currently 84% current.

AzDEQ began to address the General Permit backlog by initiating permit development for all seven of the long-expired Phase I MS4 permits. This was a priority identified in the SFY19 EOY report and a longstanding backlog issue. AzDEQ sent several staff stormwater permit writers training provided by EPA during SFY20. This helped AzDEQ to finalize the Construction General Permit and draft seven (7) individual Phase I MS4 permits. We look forward to continued progress in addressing the general permit backlog.

AzDEQ also has initiated the development of a desktop screening tool to help permit writers to do an initial assessment of whether permit coverage is necessary. Additionally, AzDEQ is in the process of terminating General Permits (GPs) for minor and infrequent dischargers and transferring coverage to individual permits, as the universe of permittees is small and better suited to coverage under individual permits. This will result in half a dozen more individual permits but the termination of two (2) General permits from the current universe of nine GPs in SFY21.

	#current/total	% current
Majors	53/59	89.83%
Minors	72/80	90%
Phase I MS4s	1/8	12.5%
General Permits	5/9	55.56%
Total	131/156	84%

**Federal Funding**  
PPG Funded

**E. Development of CWA § 404 Permitting Program**

AzDEQ initiated a process to assume administration of § 404 dredge and fill permitting program under CWA § 404(g).

**Program Performance**

AzDEQ effectively managed a complex stakeholder process that required staff and management to quickly develop knowledge of an unfamiliar and complicated program. High-quality deliverables were produced including technical reports from stakeholder groups and a § 404 roadmap document. AzDEQ began work on a MOA with EPA and a draft state rule and engaged USACE and others on critical program components. AzDEQ also engaged with the Tribes and joined EPA to meet with the Tribes at the Annual EPA R9 Tribal Conference (Oct 2019). Initially, EPA had communication concerns about the schedule for receipt of deliverables, but following the mid-year evaluation, AzDEQ updated EPA staff more regularly on the status of deliverables. As described in the workplan, the following deliverables were completed:

- AzDEQ held periodic meetings and/or conference calls with EPA to discuss § 404 assumption activities and engaged senior leadership of state and federal agencies, and 22 Arizona tribes.
- AzDEQ drafted an EPA/AzDEQ MOA, draft state rule, and provided an updated framework of activities with a timeline for completing the § 404 assumption package.

In November 2019, AzDEQ decided not to move forward with § 404 assumption due to 1) an assessment of the impact of the NWPR on state assumption (fewer jurisdictional waters); and 2) stakeholder feedback indicating a preference to maintain the existing USACE permitting process. As a result, some workplan deliverables were not completed:

- Conduct Formal Rulemaking (comments: draft rule, second draft rule, and final rule).
- Multiple agency coordination and development of MOAs including, but not limited to, USCOE and USEPA.
- Prepare program submittal package that includes program description, signed MOA's, Attorney General Certification.

After AzDEQ's decision not to proceed with the assumption process, a revised workplan was not provided to EPA. As such, EPA is unclear as to what activities were supported with unused § 404 assumption funds

**Federal Funding**  
PPG funded



## **F. CWA § 401 Water Quality Certification Program**

AzDEQ implements a state certification program to ensure activities being proposed for federal permits and licenses will meet water quality requirements.

### **Program Performance**

AzDEQ has met Workplan requirements and maintains a productive working relationship with EPA. The existing reporting requirement in the Workplan informs EPA that AzDEQ is implementing the § 401 program, but it does not provide information on § 401 compliance across the state. As there are no state § 401 rules, the statute does not allow ADEQ to conduct monitoring, thereby limiting the analysis of impacts to activities within the *Ordinary High Water Mark*. EPA recommends that AzDEQ develop rulemaking that expands the scope of its review under § 401 and that requires a robust monitoring program to ensure project compliance with water quality requirements

### **Federal Funding**

PPG Funded

## **G. CWA Enforcement and Compliance**

AzDEQ's Surface Water Protection Value Stream is responsible for all surface water NPDES enforcement and compliance work for the Water Quality Division. AzDEQ's CWA Compliance and Enforcement program include 1) conducting wastewater and stormwater inspections of permitted facilities, 2) developing and issuing compliance and enforcement actions based on identified violations, managing the delegated 3) biosolids and 4) pretreatment programs, and 5) managing the associated programmatic data management and reporting requirements. Given the scope and complexity of the program, each of the five major workplan task areas is evaluated individually below. Since March 2020, AzDEQ has faced extraordinary challenges in meeting its inspection commitments during the COVID-19 pandemic. The impact from the pandemic, along with other converging factors, accounts for AzDEQ missing some of its workplan targets this year.

### **Program Performance**

Inspections: EPA's 2014 Compliance Monitoring Strategy (CMS) requires the inspection of majors once every two years (50%) and the inspection of all minors once every five years (20%). AzDEQ set a target of inspecting 50% of the major AzPDES permitted facilities (29 of 57) and 20% of the minor facilities (15 of 75) in SFY20. Due to the pandemic, AzDEQ was unable to meet its major facilities inspection targets but did exceed its minor facilities targets by one inspection. AzDEQ conducted 18 major inspections and 16 minor inspections. Additionally, AzDEQ responded to 34 citizen complaints related to the CWA, resulting in 23 non-routine inspections. The annual CMS goal for sanitary sewer system (SSS) inspections is 5% of the permitted universe or six inspections for AzDEQ. Due to the pandemic, AzDEQ missed its SFY20 CMS goal and was only able to conduct one SSS inspection.

EPA and AzDEQ agreed to an alternative CMS for stormwater inspections. AzDEQ agreed to inspect 150 industrial facilities and 150 construction sites (110 Phase 1 and 40 Phase 2). Due to the pandemic, AzDEQ was unable to meet its stormwater inspection targets. AzDEQ conducted 107 industrial and 126 construction inspections (92 Phase 1 and 34 Phase 2). The CMS goals for the stormwater programs also include audits of Municipal Separate Storm Sewer Systems (MS4s). AzDEQ met their CMS targets of one MS4 Phase I audit and eight (8) MS4 Phase II audits.

AzDEQ has one (1) Concentrated Animal Feeding Operation (CAFO) subject to AzPDES permits (requiring inspection once in a five-year cycle). Since the AzPDES permitted facility was inspected in SFY18, AzDEQ set its target to zero CAFO inspections and did not conduct any inspections.

Compliance and Enforcement: EPA continued generating automated Quarterly Noncompliance Reports in SFY20, flagging NPDES permitted facilities in Significant Noncompliance (SNC) or Category 1 Noncompliance for acute or chronic effluent limit violations that exceed EPA's criteria for magnitude and duration, or late submittal of discharge monitoring reports.

As part of EPA's National Compliance Initiative to reduce the number of NPDES permitted facilities in SNC, EPA and AzDEQ will continue monitoring AzDEQ's SNC rate as a recurring agenda item on the monthly PPG CWA enforcement calls. AzDEQ worked cooperatively to address the facilities flagged in quarterly letters from EPA and the number of facilities that are in SNC or Category 1 Noncompliance has decreased significantly. AzDEQ's SNC rate was 8.4% in June 2020, which is below the national goal of 10.1%.

AzDEQ issued one (1) Administrative Order (AO), closed two (2) AOs, issued 54 Notices of Opportunity to Correct (NOCs) and Notices of Violation (NOVs) (including 46 stormwater actions: 18 NOVs and 33 NOCs) and closed 54 NOCs and NOVs (including 44 stormwater actions). Although AzDEQ issued fewer enforcement actions than in SFY19 (three AOs, 72 NOCs, and NOVs), AzDEQ managed, despite the pandemic, to close one (1) more informal action than in SF19 (53 NOCs and NOVs).

Biosolids Program: Biosolids are inspected as part of AzDEQ's overall inspections of publicly owned treatment works (POTWs). Due to the pandemic, AzDEQ did not meet its SFY20 target of 11 biosolids inspections. AzDEQ did inspect biosolids operations at five (5) major POTWs and one (1) large commercial facility for a total of six (6) inspections. AzDEQ exceeded its target of 26 annual report reviews submitted under the biosolids rule by reviewing 115 annual reports. The additional review of minor POTW reports, small land appliers, and California generators contributed to the increase in reviewed reports this year. AzDEQ issued and closed one (1) informal enforcement action for biosolids violations, which is tallied in the Compliance and Enforcement discussion on informal enforcement actions. In early SFY20, after consulting with EPA Region 9 on multiple occasions, AzDEQ referred a complex biosolids enforcement case to EPA's national Biosolids Center of Excellence and continued to provide support as needed throughout SFY20. If helpful for AzDEQ, EPA's Enforcement and Compliance Division can provide training on conducting biosolids inspections and determining violations.

Pretreatment Program: AzDEQ is authorized to implement the federal pretreatment regulations. Core regulatory duties specified as targets in the PPG are as follows:

- 1) Review all annual reports submitted by POTWs with approved pretreatment programs and provide written feedback when program deficiencies are found.
- 2) Conduct pretreatment compliance audits (at least once every five years for each approved POTW pretreatment program).
- 3) Conduct pretreatment compliance inspections (at least twice every five years for each approved POTW pretreatment program).

- 4) Perform annual inspections of POTWs with significant industrial user (SIU)-oversight-only pretreatment programs (at least once every five years for each program).
- 5) Review and approve the pretreatment program submittals and modifications.

Additionally, there is a specific PPG target for AzDEQ to support pretreatment work in the Ambos Nogales border region, as industrial wastewater from Mexico has caused or contributed to NPDES permit violations at the Nogales International Wastewater Treatment Plant (NIWTP). AzDEQ continued to work with wastewater representatives in Nogales, Arizona, and Nogales, Sonora, to support the implementation of the pretreatment conditions in the NIWTP NPDES permit. AzDEQ's Pretreatment Coordinator retired in July 2019, and AzDEQ has been developing pretreatment templates, checklists, and other resources to streamline pretreatment work and assist new staff. AzDEQ met its Pretreatment Compliance Audit (PCA) targets (four of four completed) but fell short of its Pretreatment Compliance Inspection (PCI) targets (two of eight completed) and SIU-oversight inspections (zero of one completed). AzDEQ had also planned to make up remaining targets that were not met in SFY19 (one PCA, two PCIs, and one SIU-oversight inspection), but fell short of meeting these as well. AzDEQ met all pretreatment report review targets (19 of 19 annual reports completed). As a reminder, please email copies of PCA and PCI reports within 30 days of issuance to both [R9NPDES@epa.gov](mailto:R9NPDES@epa.gov) and the EPA Region 9 Pretreatment Coordinator ([whitson.amelia@epa.gov](mailto:whitson.amelia@epa.gov)), as the reports had not been received at the latter address in SFY20. AzDEQ attributed not meeting all targets to several converging factors: hiring and training new inspectors, unprecedented numbers of pretreatment program modification submittals, trying to realign pretreatment work within AzDEQ's value stream, effects of the NWPR, and inspector availability due to COVID-19.

AzDEQ requested training for new pretreatment staff, and in November 2020 EPA will provide two half-day virtual pretreatment training sessions focused on topics AzDEQ prioritized.

Data Management and Reporting: AzDEQ continues to implement Phase 1 of the NPDES eRule, but data flow from AZURITE to ICIS remains an intermittent challenge. EPA R9 and AzDEQ are working with EPA HQs to solve the data flow problems. The data flow solution will be incorporated into AzDEQ's data entry plan, which addresses a required recommendation of the Round 4 State Review Framework (SRF).

Phase 2 of the NPDES eRule is scheduled to be implemented by December 21, 2025. AzDEQ continues the development of its myDEQ system for Phase 2, including the myDEQ tool for Pretreatment and Biosolids. Annually starting in January 2023 and then quarterly starting in January 2025, EPA would like updates on AzDEQ's progress meeting Phase 2 requirements. To meet the December 21, 2025 deadline, the updates should identify critical milestones and provide the status of the tool development for Phase 2 electronic reporting.

### **Federal Funding**

PPG Funded. The CWA 106 grant funds AzDEQ's CWA enforcement and compliance programs. AzDEQ does not provide a detailed breakdown of the funding allocated to these programs and, therefore, it is not possible to determine whether the drawdowns are commensurate with workplan commitments.

### **III. Nonpoint Source and Infrastructure**

#### **A. Nonpoint Source Program (NPS)**

##### **Program Performance**

Since 90% of water quality issues in Arizona are NPS related, AzDEQ's NPS Program funds support many programs in the Water Quality Division. For example, CWA 319 funds staff time for NPS project oversight, water quality assessment, IR, TMDLs, effectiveness monitoring, and NPS planning, as long as it's tied to Arizona's NPS Management Plan implementation.

This past year AzDEQ submitted the State's updated 5-year NPS Management Plan for approval; unfortunately, this deliverable was set to be submitted under the previous workplan. Other notable accomplishments: AzDEQ submitted one (1) Success Story to EPA (Turkey Creek) which is now final and published on EPA's website, hired a permanent Watershed Implementation Unit supervisor, began cross-Border NPS work through the San Pedro River Binational Cooperation (which supported the bi-national Arizona Sonora Environmental Strategic Plan), and successfully negotiated the Upper San Pedro River to be a priority watershed as a National Water Quality Initiative watershed with NRCS.

This past workplan realized many missed, late, or incomplete grant conditions and workplan commitments. EPA sent to AzDEQ a detailed list of missed grant conditions and commitments on November 13, 2020 as part of the PPG closeout process.

In June of 2020, AzDEQ informed EPA that they were deprioritizing the Santa Cruz River and San Pedro Rivers. There has been a concerted investment of federal, state, and local resources to conduct the necessary watershed analysis and planning to enable funding of implementation projects in those watersheds. We want to see our collective historic investments in these watersheds come to fruition and lead to water quality improvements.

- San Pedro River: EPA is concerned that AzDEQ moving to deprioritize the San Pedro River from AzDEQ's workplan and the recently approve NPS Plan. The USDA NRCS recently selected the San Pedro River as a priority watershed under the National Water Quality Initiative (NWQI) based on negotiations with the State. The NPS Guidelines require that states devote resources to NWQI watersheds through projects and water quality monitoring. In the San Pedro River watershed, CWA 319 funds have provided \$4.5 million to implement watershed-based plans, which in AZ have been called TMDL Implementation Plans (TIPS), Watershed Implementation Plans (WIPs), and most recently Clean Water Plans (CWPs). Projects are estimated to have reduced sediment by 74,105 tons/year. Even though E. coli is not reported in the San Pedro, we know that sediment is the conveyor of other bacterial pollutants such as E. Coli. Additionally, Phosphorus has been reduced by 385 lbs/year and Nitrogen 778 lbs/year. The San Pedro River is listed as impaired for bacteria, metals, and low dissolved oxygen. The long-anticipated San Pedro TMDL and Vision Commitment would provide further direction for necessary actions leading to full restoration of and delisting the waterbody.

- Upper Santa Cruz River: EPA and AzDEQ have invested different sources of funds and resources to analyze pollutant issues in the Upper Santa Cruz River. In the Santa Cruz watershed, over \$1 million in CWA 319 funds have been utilized to reduce sediment by an estimated 454 tons/year, Phosphorous 181 lbs/year, and Nitrogen 78 lbs/year. In addition to CWA 319 funds, EPA awarded \$1.1 million in grant funds to the Sonoran Institute. This project led to the Living River Report, Conserve to Enhance (C2E), greywater and stormwater capture ordinances for the City of Tucson, and water quality demonstration projects. This project led to EPA, through contractual support (2017-2019), providing \$200,000 to help develop a TMDL analysis for the Santa Cruz River; AzDEQ staff helped guide this work. AzDEQ finalized the analysis, provided technical input, and developed the implementation chapter which made it a complete watershed-based plan. In November 2019, AzDEQ submitted the complete Clean Water Plan to EPA. This analysis helped AzDEQ and EPA understand that the majority of NPS pollution was coming from overgrazing on the east side of the watershed.

Furthermore, revising the NPS Program Plan and removing the San Pedro and Santa Cruz River watersheds will no longer allow CWA 319(h) funds to be used in those watersheds, including all current and future NPS funds in the PPG and the Project grant. In addition, the grant conditions require that AZDEQ provide operation and maintenance for the lifespan of implementation projects' BMPs.

### **Federal Funding**

Through CWA § 319(h), AzDEQ had \$4.3 million available for SFY 19/20 to implement its NPS Program Plan through programmatic tasks. AzDEQ splits the NPS funds in half between the PPG for staff time working on NPS issues and a stand-alone NPS Projects grant to implement watershed-based plans. EPA requires that no more than 50% to programmatic needs and 50% or more must implement watershed plans, AzDEQ meets the minimum requirement.

## **B. Nonpoint Source Projects (CWA § 319)**

### **Program Performance**

- There 5 open NPS Projects grants with a balance (see below) that are funding 16 implementation projects in Arizona.
- AzDEQ and EPA Region 9 meet quarterly to discuss ongoing project status.
- AzDEQ shifted to the direct implementation of project grants to decrease the time to see results from on-the-ground projects. (The program previously employed an RFGA (or RFP) process to identify projects.) EPA will continue to look for timely subgrant awards and obligation of federal funds within one year as per the grant condition.

### **Federal Funding**

AzDEQ CWA § 319 funding is split 50/50; one half goes to fund Program tasks through the PPG and the other half goes into a Projects grant to implement watershed plans. At any given time, AzDEQ has 5 open NPS Projects grants, where each grant is approximately \$1.3 million in federal funds and an additional required 40% local match of the total project cost. The chart below shows the current open NPS grants with balances; our goal is to reach 40% unliquidated obligation (ULO) by April of each year.

Grant #	FFY	Project	Period	Grant Award Amount	Balance (ULO)	% ULO
C9-98961317-0	16	10/01/2016	09/30/2021	\$1,276,500	\$31,674	2%
C9-98961318-0	17	10/01/2017	09/30/2022	\$1,320,500	\$1,047,226	79%
C9-98961319-0	18	10/01/2018	09/30/2023	\$1,304,500	\$1,271,816	97%
C9-98961320-0	19	10/01/2019	09/30/2024	\$1,291,500	\$1,282,223	99%
C9-98961321-0	20	10/01/2020	09/30/2025	\$1,346,500	\$1,346,500	100%
			Total	\$6,539,500	\$4,979,440	76%

### C. US-Mexico Border

AzDEQ's Office of Border Environmental Protection (OBEP) works with local, state, and federal agencies on both sides of the border to address transboundary wastewater flows from Sonora to Arizona, promote wastewater pretreatment, and protect water quality in the Santa Cruz and San Pedro rivers.

#### Program Performance

AzDEQ has worked with EPA, the North American Development Bank, the International Boundary and Water Commission (IBWC), Cochise County, and Santa Cruz County to prevent the transboundary flow of wastewater in Naco, AZ, and Nogales, AZ. AzDEQ communicates with OOMAPAS, the water utility in Sonora, to obtain status updates on actual and potential SSO events, and shares that information with agency stakeholders via monthly conference calls and emails. AzDEQ has been an active and effective participant in binational meetings (Arizona-Sonora Border 2020 Water Task Force and Nogales Binational Technical Committee meetings), engaging on infrastructure and watershed protection issues.

In 2019-20, AzDEQ worked with IBWC and other agencies to help secure the funding needed to begin implementation of the IBWC project to upgrade the International Outfall Interceptor in Nogales. AzDEQ participated in the IBWC-led formation of the Sonora SSO Rapid Response Team, which is designed to prevent the occurrence of dry weather flows of wastewater from Sonora to Arizona, promote rapid notification about SSO events to stakeholders on both sides of the border, and coordinate the deployment of equipment, e.g., pumps, in response to emergencies.

#### Federal Funding

All tasks/deliverables under this Value Stream appear to be funded by the PPG but there is no documentation to explain or illustrate the amount of federal funding that is allocated to these tasks. It is difficult to evaluate tasks/deliverables when there is no description of federal funding dedicated to the administration tasks.

## **D. Clean Water Act 604(b) and 205(j) – Water Quality Management Planning (WQMP)**

### **Program Performance**

In 2018, based on customer needs, AzDEQ and EPA negotiated that 100% of the funds would go to local planning organizations to help meet local needs. This was done as a competitive selection process and was very successful. However, in 2020, the state decided to migrate back to the former way of implementing the program and partially fund one AzDEQ staff with 60% of the funding. At this time, 60% of the funds support state staff and 40% are passed-through to planning agencies and Designated Planning Agencies for Clean Water Act 208 Plan Updates. The final workplan report covers the last 2-years of the current 3-year CWA 604(b) grant.

### **Federal Funding**

The current CWA 604(b) grant has been amended 3 times to include 3 years of federal funding (Fiscal Year 18, 19, and 20); the total funding for this grant is \$318,000. AzDEQ has received approximately \$100,000 per year. Per statute, at least 40% of the funds must be passed through to planning organizations. During Workplan negotiations for SFY 21, it became clear that AzDEQ was funding part of this output with PPG funds (staff time), however, it is unclear how much PPG funds were spent on this task.

## **E. Drinking Water and Clean Water State Revolving Fund**

In AZ, WIFA is the EPA grant recipient for the State Revolving Funds. In FY20, WIFA was awarded \$19.8 million in its Drinking Water State Revolving Fund (DWSRF) program and \$19.8m in its Clean Water State Revolving Fund (CWSRF) program. WIFA transfers to AzDEQ approximately \$4.2 million in DWSRF funds to support PWSS-related activities. Evaluation of those program activities is addressed under the PWSS section of this report.

EPA completed the annual SRF performance evaluation review and shared the report with WIFA and AzDEQ in July 2020. Earlier this year we offered to coordinate with AzDEQ management concerning this CWSRF issue.

## **IV. Groundwater and Drinking Water**

### **A. Ground Water**

The purpose of the Ground Water Value Stream is to administer Arizona's groundwater protection program to protect Arizona's aquifers as drinking water sources. Program activities include Data Management and Reporting of the State Aquifer Protection Permit (APP) program, Planning, Program Development, and Implementation by pursuing UIC Primacy, Compliance, and Enforcement through the development of guidance documentation for the regulated community and Permitting and Compliance of Department rules, practices, and policies.

### **Program Performance**

None of AzDEQ's groundwater-related activities in the Ground Water Value Stream are funded with federal PPG monies. For non-federally funded groundwater activities, EPA does not conduct a specific performance evaluation to measure the success of state outputs. EPA appreciates periodic

program status updates, drywell inventory, close coordination with AzDEQ groundwater staff on APP/UIC permit activities and the collaborative relationship associated with the UIC Primacy development efforts. AzDEQ is working closely with EPA on their UIC Primacy application.

### **Federal Funding**

No federal funds are allocated or designated for the Ground Water Value Stream. The Integrated PPG Workplan should reflect this. All AzDEQ groundwater activities are supported by state funds.

## **B. Public Water Systems Supervision**

EPA conducted an end-of-year evaluation of the SFY20 Public Water System Supervision (PWSS) program, administered by the AzDEQ on September 22, 2020. AzDEQ successfully met all workplan commitments for FY20. Based on this review, AzDEQ continues to implement an effective drinking water program despite notable challenges due to program vacancies and the COVID-19 pandemic this past fiscal year.

### **Program Performance**

Throughout FY20, EPA worked with AzDEQ to address the 16 findings/ recommendations from the comprehensive PWSS Program/File Review conducted by EPA in October 2016. To date, AzDEQ has addressed all but one of EPA's recommendations, the majority of which resulted in changes to AzDEQ's rule implementation processes.

AzDEQ continues to work with Maricopa County to implement a corrective action plan that addresses findings from their SFY19 evaluation of the Maricopa County delegated drinking water program. Noteworthy findings included lack of implementation of the Lead and Copper Rule, failure to enforce drinking water violations, and failure to compel correction of significant deficiency findings to be addressed through training and development of program SOPs as well as improved coordination between the county and AzDEQ for reporting changes in water system data (inventory, violations). In FY20, AzDEQ conducted a similar evaluation of Pima County. The draft evaluation report is currently under the AzDEQ management review with issuance in FY21.

Status of Rule Adoption: AzDEQ has regulatory authority and interim primacy for all federal SDWA rules promulgated to date. EPA approved four (4) primacy revisions in January 2020, to include two (2) older rules (Consumer Confidence Report Rule, Public Notification Rule) and two (2) statutory revisions (revised PWSS definition, Administrative Penalty Authority). This represented the first revised primacy action by EPA for AzDEQ since 1993. AzDEQ also submitted draft primacy packages for six (6) additional rules for EPA review, resulting in the submittal of a final AzDEQ primacy package for the Lead and Copper Rule (LCR), LCR Minor Revisions, and LCR Short Term Revisions in June 2020. EPA will plan to approve AzDEQ's final LCR application in early FY21.

Sanitary Surveys: The Compliance and Inspections unit conducts sanitary surveys for CWS every three (3) years unless a system is determined to be an outstanding performer or a non-community water system, for which sanitary surveys are performed every five (5) years. AzDEQ prioritizes sanitary surveys by the date of the last survey. AzDEQ's sanitary surveys include the evaluation of



all required eight (8) elements and does not include optional elements like financial evaluation. Maricopa and Pima counties perform sanitary surveys for systems under their delegation through an agreement with AzDEQ.

In FY20, AzDEQ inspectors conducted 241 sanitary surveys. Before COVID-19 changed how Sanitary Surveys were performed, 91% of CWSs and 96% of non-community water systems had complete Sanitary Surveys on time. AzDEQ inspectors completed 93% of Sanitary Surveys on time. Inspectors from Maricopa and Pima counties completed 98% and 99% of Sanitary Surveys on time, respectively. COVID-19 required AzDEQ to implement a Sanitary Survey program through virtual inspections. The new protocol for FY21 will allow inspectors to be present at PWSs, while not being in-person. Virtual inspections can be held by video call or through the phone, with photos submitted with GPS data and a timestamp.

Data Management and Reliability: AzDEQ was the first Region 9 primacy agency to adopt Compliance Monitoring Data Portal and to upgrade from SDWIS 3.33 to SDWIS 3.4, providing the drinking water program with the most current data management applications. AzDEQ furthered its predictive modeling efforts, initiated in FY19, to predict arsenic compliance issues before the system fell out of compliance. Preliminary results of the pilot project have identified source water arsenic hotspots close to a PWS for use by AzDEQ Technical Assistance staff and Compliance Assistance Coordinators in their outreach to any targeted systems that may need to treat and to plan their annual operating budget accordingly.

AzDEQ continues to show strong results on data quality indicators including the types and numbers of errors from the validation of SDWIS/State submittals to SDWIS/Fed (including one quarter with zero errors) and on the Data Quality Matrix (DQM) report that evaluates the quality of data in the SDWIS Federal Data Warehouse. Except for a few issues, notably enforcement actions with no precipitating violation and violation deletion issues on the DQM, AzDEQ maintains overall excellent data quality.

### **Federal Funding**

The State implements the PWSS program through the Workplan. In addition, AzDEQ receives DWSRF set-aside funds from WIFA through a contract. AzDEQ used the full amount of the 2% Small System Technical Assistance Set-aside; the 10% State Program Management Set-aside; and the 15% Local Assistance Set-aside (for Wellhead Protection, and Capacity Development). The Arizona PWSS program also implements various fee-based programs (design review, Monitoring Assistance Program, operator certification) which supplements program funding.

During FY20, AzDEQ had sustained vacancies in all units in the Drinking Water (DW) value stream including a unit manager and 3 other staff positions. The DW value stream has reassessed staffing needs to prioritize filling of vacancies. Arizona Legislature enacted a “bare bones” budget prior to COVID-19 shelter-in-place order in March. From all the available funding sources, AzDEQ has budgeted a total of 34 FTEs to implement their \$6.1M PWSS program.

## **C. Drinking Water Enforcement and Compliance**

EPA R9’s Enforcement and Compliance Assurance Division oversees Arizona’s drinking water enforcement program to ensure that drinking water systems in violation of the SDWA are

appropriately addressed. The EPA FY20 OECA Annual Commitment System (ACS) commitment for drinking water requires that states address the number of priority systems equal to the number of its Public Water Systems (PWSs) that have a score of 11 or higher on the July 2019 Enforcement Targeting Tool (ETT) report by issuing a formal enforcement action or verifying return to compliance. Systems with an ETT score of 11 or higher, with unaddressed violations for more than six months, are potential candidates for escalated enforcement actions. AzDEQ's success at addressing violations is tracked using the quarterly ETT reports.

While AzDEQ continues to have numerous systems with arsenic MCL violations and systems that have remained on the ETT list for long periods, AzDEQ has strived to meet commitments to the best of their ability. Based on quarterly discussions with EPA, AzDEQ has provided detailed explanations for systems with unaddressed violations that satisfactorily explain why unaddressed systems remain in a state of noncompliance.

### **Program Performance**

At the beginning of July 2019, there were 30 facilities on the ETT list with a score of 11 or higher. As of July 2020, 38 systems had a score of 11 or higher. AzDEQ addressed 18 of the original 30 systems on the July 2019 list by July 2020 through the issuance of formal enforcement action and/or the system returned to compliance. AzDEQ has implemented a state-operated ETT system by the name of "ETT Live." Per AzDEQ, "ETT-Live" provides more accurate and real-time updates to the ETT scores. This allows AzDEQ to provide more accurate ETT scores and updates during quarterly discussions with EPA.

EPA has a Long-Term Performance Goal to reduce the average time from violation identification to correction. The table below demonstrates the number of violations incurred in each quarter as well as the number of violations (from the same or earlier quarters) that returned to compliance in that quarter.

	2019 Q3	2019 Q4	2020 Q1	2020 Q2
<b># PWSs in Priority Status (ETT ≥ 11)</b>	30	41	34	N/A*
<b># Violations Issued</b>	550	474	438	N/A
<b># Violations RTCd</b>	553	719	696	N/A

\* Data were not available until October 2020.

AzDEQ issued 132 informal enforcement actions (Notices of Opportunity to Correct [NOCs] and/or Notices of Violations [NOVs]) to water systems to address non-compliance issues. AzDEQ closed 140 NOCs/NOVs in SFY 2020. AzDEQ issued 13 administrative orders. Nine (9) administrative orders were closed when the water systems returned to compliance. AzDEQ also investigated 45 complaints related to drinking water.

AzDEQ is currently tracking 24 water systems with arsenic MCL violations. AzDEQ returned to compliance 8 systems in July 2019. In July 2019, AzDEQ originally reported 19 systems with arsenic MCL violations. Since this time, 10 new systems were added to the original list.